

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-31 Date Opened: 14 February 2017 Title: FabricationAircraft OEM: Varies Aircraft Model: Varies Product Type: Handle Assembly Product Model: Varies Quantity: 10+12+1**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

JC
DM
JC
JC
N/A
DM
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JC
JR

Drawing List

Drawing #	Rev #	Description	Initial or N/A
84261	2	Handle Bar Assembly	JC

Traveller**Component Completion**

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

23
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
DM
N/A
DM

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JC
N/A
N/A

Notes

(10) Medium handles, (12) long and ski handles, (1) mega handle

Work performed by:

Print: David Martyn

ICC / Dual Inspection performed by:

Print: Jason Rekve

Work Order closed by:

Print: Clay Brander/Jeff Clarke

Approved Manufacturing Facility 73-04

Sign: Sign: Sign: 

Form 20.0.03

SCA: AD05

SCA: AD01

SCA: AD02

Date: 1-May-17

Date: 1-May-17

Date: 7-Dec-17

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Lever assy. L/H No. of pieces: 58

Manufacturer: Aero Design Ltd.

Part No.: 84261-02 Serial / Batch No.: 15018/2015-42

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-122

Remaining Tasks to be Performed: Sand blast-DRM Weld on tube.

Signature: David Mart

Date: Nov 20/2015 Lic. No. / SCA AD-05

In Process



Aero Design Ltd.

9888 A Malaspina Rd, Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Lever assy. L/H No. of pieces: 12

Manufacturer: Aero Design Ltd.

Part No.: 84261-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-14

Remaining Tasks to be Performed: Weld to tube

Signature: [Signature]

Date: Jan 16 / 2017 Lic. No. / SCA 73-04

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: lever assy. RH No. of pieces: 37

Manufacturer: Aero Design Ltd.

Part No.: 84261-02 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-42

Remaining Tasks to be Performed: Sand blast, drill bushing
weld to tubing

Signature: David May

Date: May 2015 Lic. No. / SCA AD-05

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process

* See additional work sheet.

CARGO BASKET HANDLE FABRICATION

General

These instructions apply to all cargo basket handle assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

All Models: 84261, Rev. 1

Work Order: 2017-3031 JR.

QTY to 12 JC.

Date Open: 14 FEB 2017

Complete
(initial or SCA #)

AD
73-04
05

1. Weld Lever Assembly – handle lever jig required
 - a. Set MS20615-4M3 monel rivet into socket in jig
 - b. Set 36274-01 bushing into socket in jig
 - c. Set 84261-01 lever onto handle jig, with rivet and bushing protruding into lever.
 - d. TIG weld around bushing using ER308L rod.
 - e. Fuse weld rivet to lever. Additional ER308L rod may be used if required.
 - f. Repeat steps a-f using hole/socket on opposite side of jig to make opposite lever assembly.
 - g. Record material POs on attached material list.

2. Clean up
 - a. Clean lever assembly by media blasting with glass bead.
 - b. Drill out lever bushing to O (0.316) on lathe:
 - i. Grasp bushing in chuck, ensure rivet clears between the jaws.
 - ii. Run at 300 RPM.
 - iii. Apply a drop of Rapid-Tap to drill.
 - c. De-burr.

AD
73-04
05

3. Fabricate Handle Assembly
 - a. Temporarily install handle levers (from step 2) on lid assembly. Ensure long side of handle bushings are on INSIDE (pointing together).
 - b. Measure across TOP side of levers.
 - c. Cut handle tubing to length measured.
 - i. Handles under 40" long: 1.0" x 0.035 round tube
 - ii. Handles over 40" long: 1.0" x 0.065 round tube
 - d. De-burr tube.
 - e. Insert tube into handle levers. Tap with a plastic mallet to seat tube flush with lever. Raise handle to ensure both levers touch stops to check alignment.
 - f. Record material PO on attached material list.

AD
73-04
05

4. Weld Handle Assembly
 - a. Fuse tube to lever on both ends. Ensure levers are parallel.

AD
73-04
02

5. Clean up
 - a. Clean welded area with scotch-brite.

6. Final Inspection –

To be completed by a different person than the previous steps.

 - a. Welds for complete and handle for fit.
 - b. Tag complete and inspected parts in preparation for installation.

AD

Work Order: 2017-3031 JC.Date Opened: 14 Feb 2017Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Handle Assembly

1 of 1

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>10</u>	84261	84261-01	Handle Assembly		
Step 1	<u>12 JC.</u>			<i>Weld Lever Assembly</i>		<u>2017-65 / 2017-14</u>
	. 2		84265-01	Lever	304 Stainless, 0.105 Sheet	
	. 2		36274-01	Bushing	304 Stainless, 7/16" x 0.065 Rnd. Tube	
	. 2		MS20615-4M3	Rivet		
	. A/R			Welding Rod	ER308L TIG Rod	
Step 2				<i>Clean Up</i>	<i>None</i>	
Step 3				<i>Fabricate Handle Bar</i>		
	. 1		36277-01	Handle Bar	316 Stainless, 1.0 x 0.065 Rnd. Tube	<u>17005</u>
Step 4				<i>Weld Handle Assembly</i>	<i>None - Fuse weld, no rod req.</i>	
Step 5				<i>Clean Up</i>	<i>None</i>	
Step 6				<i>Inspection - Final Assembly</i>	<i>None</i>	



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Lever assy. R/H No. of pieces: 58

Manufacturer: Aero Design Ltd.

Part No.: 84261-02 Serial / Batch No.: 15018/2015-42

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-122

Remaining Tasks to be Performed: Sand blast @ PM, weld on
Tube.

Signature: [Signature]

Date: Nov 20/2015 Lic. No. / SCA AD-05

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Lever Assy, R/H No. of pieces: 11

Manufacturer: Aero Design Ltd.

Part No.: 84261-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-14

Remaining Tasks to be Performed: Weld to Tube

Signature: David May

Date: Jan 16/2017 Lic. No. / SCA 73-04 05

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

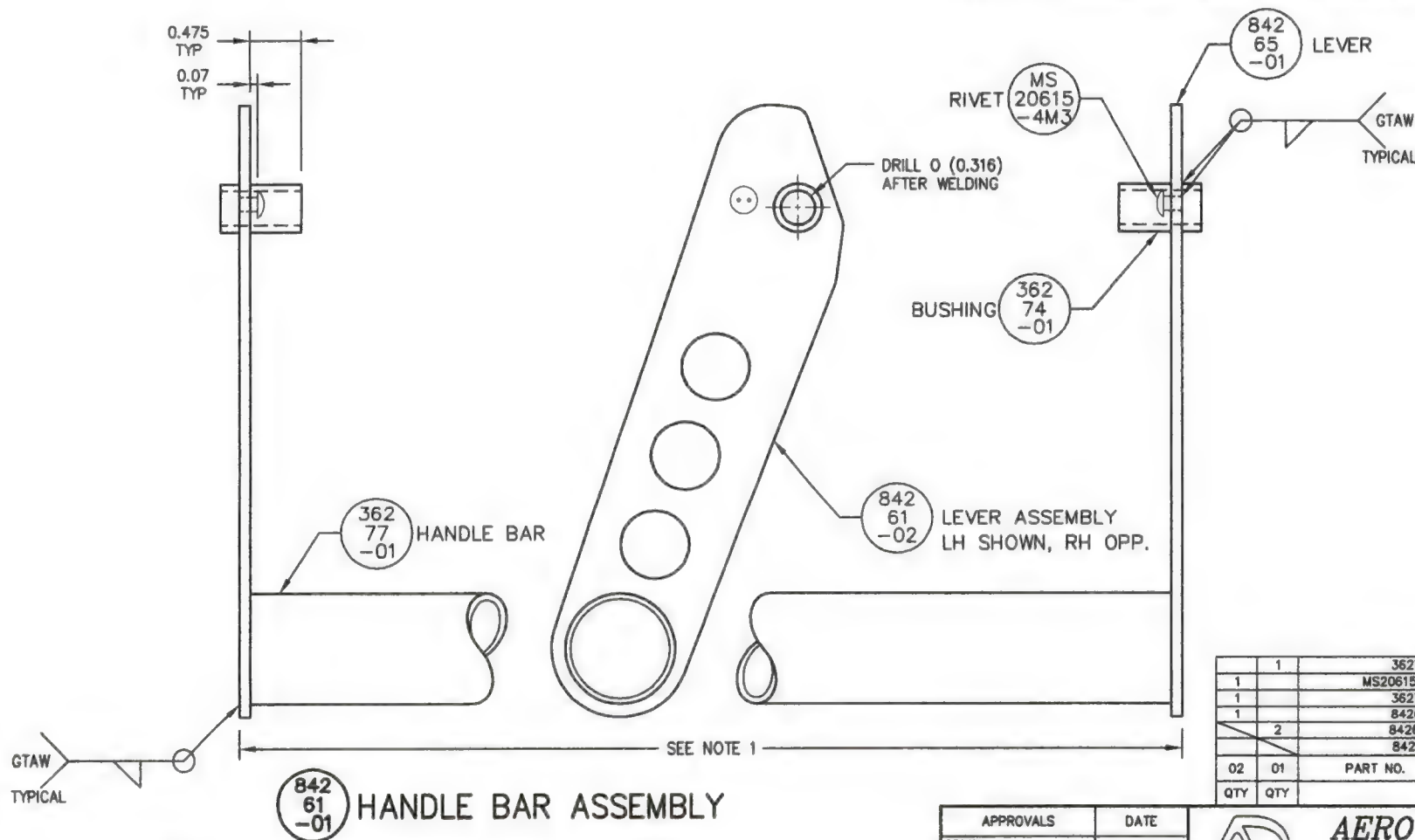


Work Order:

[illegible]

THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREON.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	HANDLE END BRACKETS FLIPPED	BJC	SEPT 19/11
2	TITLE BLOCK UPDATED; LEVER ASSEMBLY ASSIGNED P/N	BJC	MAR 13/14



NOTES:

1. LENGTH OF HANDLE TO BE DETERMINED BY BASKET ASSEMBLY DRAWING.
2. REMOVE ALL BURRS AND SHARP EDGES.
3. WELDING TO BE COMPLETED BY GTAW METHOD TO AMS2685C USING ER308L ROD.

QTY	QTY	PART NO.	DESCRIPTION
1	1	36277-01	HANDLE BAR
1	1	MS20615-4M3	RIVET (MONEL)
1	1	36274-01	BUSHING
1	1	84265-01	LEVER
2	2	84261-02	LEVER ASSEMBLY (RH/LH)
02	01	84261-01	HANDLE BAR ASSY
LIST OF MATERIALS			

APPROVALS	DATE
DRAWN: R. RATHWELL	JUNE 18/09
CHECKED: E. BURGAIN	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1



AERO DESIGN LTD.

9888A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 904.488.2576 www.aerodesign.ca

**HELICOPTER CARGO BASKET
HANDLE BAR ASSEMBLY**

SCALE	DWG. SIZE	DWG. NO.	REV.
SCALE 1 : 1	A3	84261	2
SHEET 1 OF 1			

* See additional Work Sheet

CARGO BASKET HANDLE FABRICATION

Medium

General

These instructions apply to all cargo basket handle assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

All Models: 84261, Rev. 1

Work Order: 2017-31

Qty 10

Date Open: 2017 FEB 14th

Complete
(initial or SCA #)

AO
73-04
05

1. Weld Lever Assembly – handle lever jig required
 - a. Set MS20615-4M3 monel rivet into socket in jig
 - b. Set 36274-01 bushing into socket in jig
 - c. Set 84261-01 lever onto handle jig, with rivet and bushing protruding into lever.
 - d. TIG weld around bushing using ER308L rod.
 - e. Fuse weld rivet to lever. Additional ER308L rod may be used if required.
 - f. Repeat steps a-f using hole/socket on opposite side of jig to make opposite lever assembly.
 - g. Record material POs on attached material list.

2. Clean up
 - a. Clean lever assembly by media blasting with glass bead.
 - b. Drill out lever bushing to O (0.316) on lathe:
 - i. Grasp bushing in chuck, ensure rivet clears between the jaws.
 - ii. Run at 300 RPM.
 - iii. Apply a drop of Rapid-Tap to drill.
 - c. De-burr.

AO
73-04
05

3. Fabricate Handle Assembly
 - a. Temporarily install handle levers (from step 2) on lid assembly. Ensure long side of handle bushings are on INSIDE (pointing together).
 - b. Measure across TOP side of levers.
 - c. Cut handle tubing to length measured.
 - i. Handles under 40" long: 1.0" x 0.035 round tube
 - ii. Handles over 40" long: 1.0" x 0.065 round tube
 - d. De-burr tube.
 - e. Insert tube into handle levers. Tap with a plastic mallet to seat tube flush with lever. Raise handle to ensure both levers touch stops to check alignment.
 - f. Record material PO on attached material list.

AO
73-04
05

4. Weld Handle Assembly
 - a. Fuse tube to lever on both ends. Ensure levers are parallel.

AO
73-04
05

5. Clean up
 - a. Clean welded area with scotch-brite.

6. Final Inspection –

To be completed by a different person than the previous steps.

 - a. Welds for complete and handle for fit.
 - b. Tag complete and inspected parts in preparation for installation.

AO
73-04
05

Duals (3)
plus cover
sheet

Work Order: 2017-31Material Tracking Sheet
AS350 / AS355 Medium Basket Handle Assembly

1 of 1

Date Opened: Feb 2017

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	10	84261	84261-01	Handle Assembly		
Step 1				<i>Weld Lever Assembly</i>		<i>2015-42/2017-14</i>
	. 2		84265-01	Lever	304 Stainless, 0.105 Sheet	
	. 2		36274-01	Bushing	304 Stainless, 7/16" x 0.065 Rnd. Tube	
	. 2		MS20615-4M3	Rivet		
	. A/R		--	Welding Rod	ER308L TIG Rod	
Step 2				<i>Clean Up</i>	<i>None</i>	
Step 3				<i>Fabricate Handle Bar</i>		
	. 1		36277-01	Handle Bar	304 Stainless, 1.0 x 0.035 Rnd. Tube	<i>17005</i>
Step 4				<i>Weld Handle Assembly</i>	<i>None - Fuse weld, no rod req.</i>	
Step 5				<i>Clean Up</i>	<i>None</i>	
Step 6				<i>Inspection - Final Assembly</i>	<i>None</i>	



Type:

Work Order:

[illegible]

CARGO BASKET HANDLE FABRICATION

MEGA

General

These instructions apply to all cargo basket handle assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

All Models: 84261, Rev. 1

Work Order: 2017-31

Qty 1

Date Open: 14th FEB 2017

Complete
(initial or SCA #)

2015-122

1. Weld Lever Assembly – handle lever jig required
 - a. Set MS20615-4M3 monel rivet into socket in jig
 - b. Set 36274-01 bushing into socket in jig
 - c. Set 84261-01 lever onto handle jig, with rivet and bushing protruding into lever.
 - d. TIG weld around bushing using ER308L rod.
 - e. Fuse weld rivet to lever. Additional ER308L rod may be used if required.
 - f. Repeat steps a-f using hole/socket on opposite side of jig to make opposite lever assembly.
 - g. Record material POs on attached material list.
2. Clean up
 - a. Clean lever assembly by media blasting with glass bead.
 - b. Drill out lever bushing to O (0.316) on lathe:
 - i. Grasp bushing in chuck, ensure rivet clears between the jaws.
 - ii. Run at 300 RPM.
 - iii. Apply a drop of Rapid-Tap to drill.
 - c. De-burr.
3. Fabricate Handle Assembly
 - a. Temporarily install handle levers (from step 2) on lid assembly. Ensure long side of handle bushings are on INSIDE (pointing together).
 - b. Measure across TOP side of levers.
 - c. Cut handle tubing to length measured.
 - i. Handles under 40" long: 1.0" x 0.035 round tube
 - ii. Handles over 40" long: 1.0" x 0.065 round tube
 - d. De-burr tube.
 - e. Insert tube into handle levers. Tap with a plastic mallet to seat tube flush with lever. Raise handle to ensure both levers touch stops to check alignment.
 - f. Record material PO on attached material list.
4. Weld Handle Assembly
 - a. Fuse tube to lever on both ends. Ensure levers are parallel.
5. Clean up
 - a. Clean welded area with scotch-brite.
6. Final Inspection –

To be completed by a different person than the previous steps.

 - a. Welds for complete and handle for fit.
 - b. Tag complete and inspected parts in preparation for installation.

AD
73-04
05

AD
73-04
05

AD
73-04
05

AD
73-04
05

Work Order: 2017-31Material Tracking Sheet
Bell 205/212 Mega Handle Assembly

1 of 1

Date Opened: Feb 2017

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>1</u>	84261	84261-01	Handle Assembly		
Step 1			84261-02	<i>Weld Lever Assembly</i>		<i>2015-122</i>
	. 2		84265-01	Lever	304 Stainless, 0.125 Sheet	
	. 2		36274-01	Bushing	304 Stainless, 7/16" x 0.065 Rnd. Tube	
	. 2		MS20615-4M3	Rivet		
	. A/R		--	Welding Rod	ER308L TIG Rod	
Step 2				<i>Clean Up</i>	<i>None</i>	
Step 3				<i>Fabricate Handle Bar</i>		
	. 1		36277-01	Handle Bar	304 Stainless, 1.0 x 0.065 Rnd. Tube	<i>17005</i>
Step 4				<i>Weld Handle Assembly</i>	<i>None - Fuse weld, no rod req.</i>	
Step 5				<i>Clean Up</i>	<i>None</i>	
Step 6				<i>Inspection - Final Assembly</i>	<i>None</i>	